OIPE
JUN 27 2005
PATENT & TRADEMARK OFFICE

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for managing [[a]] an Address Resolution Protocol (ARP) message received at a bridging device, said bridging device for bridging a subnet, said method comprising:

[[a)]] receiving a first message comprised within an ARP frame, said first message comprising a first contact information for a remote electronic device and a first distance vector representing a first number of hops said first message has traversed;

[[b)]] comparing said first distance vector to a stored second distance vector corresponding to a stored second contact information for said remote electronic device, said second contact information and said second distance vector provided by a second message comprised within an ARP frame, said second distance vector representing a second number of hops said second message has traversed; and

[[c)]] storing a message based on results of said comparing.

2. (Currently Amended) A method as recited in Claim 1, wherein said ~~step c)~~ storing said message based on results of said comparing further comprises:

provided said first number of hops is greater than said second number of hops, discarding said first message; and

provided said first number of hops is not greater than said second number of hops, discarding said second contact information and said second distance vector and storing said first contact information and said first distance vector.

3. (Cancelled)

4. (Original) A method as recited in Claim 1 wherein a computer-readable memory of said bridging device is configured for storing said first contact information, said first distance vector, said second contact information and said second distance vector.

5. (Original) A method as recited in Claim 1 wherein said bridging device is operating as a standby bridging device.

6. (Currently Amended) A method as recited in ~~Claim 3~~ Claim 1 wherein said first distance vector is transmitted in pad bytes of said first message and said second distance vector is transmitted in pad bytes of said second message.

7. (Original) A method as recited in Claim 1 wherein said first message is received from a remote bridging device, wherein upon forwarding

said first message, said remote bridging device increments said first number of hops by one.

8. (Currently Amended) A method as recited in ~~Claim 3~~ Claim 1 wherein said first distance vector comprises:

a checksum for determining the validity of said first distance vector;

an identifier for identifying said first distance vector; and

a value representing said first number of hops.

9. (Currently Amended) A method as recited at ~~Claim 3~~ Claim 1 wherein said ~~address resolution protocol messages~~ first message and said second message are standard Ethernet ~~address resolution protocol~~ ARP messages.

10. (Currently Amended) A method as recited at ~~Claim 3~~ Claim 1 wherein said ~~address resolution protocol messages~~ first message and said second message are 802.1q ~~address resolution protocol~~ ARP messages.

11. (Currently Amended) An bridging device comprising:

a bus;

an interface coupled to said bus for receiving an external message from a second electronic device;

a computer-readable memory coupled to said bus; and

a processor coupled to said bus, said processor for executing a method for managing Address Resolution Protocol (ARP) messages received at said bridging device, said method comprising:

[[a)]] receiving a first message comprised within an ARP frame, said first message comprising a first contact information for a remote electronic device and a first distance vector representing a first number of hops said first message has traversed;

[[b)]] comparing said first distance vector to a stored second distance vector corresponding to a stored second contact information for said remote electronic device, said second contact information and said second distance vector provided by a second message comprised within an ARP frame, said second distance vector representing a second number of hops said second message has traversed; and

[[c)]] storing a message based on results of said comparing.

12. (Currently Amended) An bridging device as recited in Claim 11, wherein said ~~step c)~~ storing said message based on results of said comparing further comprises:

provided said first number of hops is greater than said second number of hops, discarding said first message; and

provided said first number of hops is not greater than said second number of hops, discarding said second contact information and said second

distance vector and storing said first contact information and said first distance vector.

13. (Cancelled)

14. (Original) An bridging device as recited in Claim 11 wherein said computer-readable memory is configured for storing said first contact information, said first distance vector, said second contact information and said second distance vector

15. (Original) An bridging device as recited in Claim 11 wherein said bridging device is operating as a standby bridging device.

16. (Currently Amended) An bridging device as recited in ~~Claim 13~~ Claim 11 wherein said first distance vector is transmitted in pad bytes of said first message and said second distance vector is transmitted in pad bytes of said second message.

17. (Original) An bridging device as recited in Claim 11 wherein said first message is received from a remote bridging device, wherein upon forwarding said first message, said remote bridging device increments said first number of hops by one.

18. (Currently Amended) An bridging device as recited in ~~Claim 13~~ Claim 11 wherein said first distance vector comprises:

a checksum for determining the validity of said first distance vector;

an identifier for identifying said first distance vector; and

a value representing said first number of hops.

19. (Currently Amended) An bridging device as recited at ~~Claim 13~~ Claim 11 wherein said ~~address resolution protocol messages~~ first message and said second message are standard Ethernet ~~address resolution protocol~~ ARP messages.

20. (Currently Amended) An bridging device as recited at ~~Claim 13~~ Claim 11 wherein said ~~address resolution protocol messages~~ first message and said second message are 802.1q ~~address resolution protocol~~ ARP messages.

21. (Currently Amended) A computer-readable medium having computer-readable program code embodied therein for causing a computer system to perform a method for managing Address Resolution Protocol (ARP) messages received at a bridging device, said method comprising:

[[a)]] receiving a first message comprised within an ARP frame, said first message comprising a first contact information for a remote electronic

device and a first distance vector representing a first number of hops said first message has traversed;

[[b)]] comparing said first distance vector to a stored second distance vector corresponding to a stored second contact information for said remote electronic device, said second contact information and said second distance vector provided by a second message comprised within an ARP frame, said second distance vector representing a second number of hops said second message has traversed; and

[[c)]] storing a message based on results of said comparing.

22. (Currently Amended) A computer-readable medium as recited in Claim 21, wherein said ~~step c)~~ storing said message based on results of said comparing further comprises:

provided said first number of hops is greater than said second number of hops, discarding said first message; and

provided said first number of hops is not greater than said second number of hops, discarding said second contact information and said second distance vector and storing said first contact information and said first distance vector.

23. (Cancelled)

24. (Original) A computer-readable medium as recited in Claim 21 wherein a computer-readable memory of said bridging device is configured for storing said first contact information, said first distance vector, said second contact information and said second distance vector.

25. (Original) A computer-readable medium as recited in Claim 21 wherein said bridging device is operating as a standby bridging device.

26. (Currently Amended) A computer-readable medium as recited in ~~Claim 23~~ Claim 21 wherein said first distance vector is transmitted in pad bytes of said first message and said second distance vector is transmitted in pad bytes of said second message.

27. (Original) A computer-readable medium as recited in Claim 21 wherein said first message is received from a remote bridging device, wherein upon forwarding said first message, said remote bridging device increments said first number of hops by one.

28. (Currently Amended) A computer-readable medium as recited in ~~Claim 23~~ Claim 21 wherein said first distance vector comprises:

a checksum for determining the validity of said first distance vector;

an identifier for identifying said first distance vector; and

a value representing said first number of hops.

29. (Currently Amended) A computer-readable medium as recited at ~~Claim 23~~ Claim 21 wherein said ~~address resolution protocol messages~~ first message and said second message are standard Ethernet ~~address resolution protocol~~ ARP messages.

30. (Currently Amended) A computer-readable medium as recited at ~~Claim 23~~ Claim 21 wherein said ~~address resolution protocol messages~~ first message and said second message are 802.1q ~~address resolution protocol~~ ARP messages.